

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

ATTORNEY DOCKET NUMBER: 10005846-3

IN RE APPLICATION OF: U.S. Patent No. 6,990,562

USPTO CONFIRMATION CODE: 7063

APPLICATION NO.: 10/685,929

FILED: Oct. 14, 2003

EXAMINER: Hong Kim

GROUP ART UNIT: 2186

FOR: MEMORY CONTROLLER TO COMMUNICATE WITH MEMORY DEVICES
THAT ARE ASSOCIATED WITH DIFFERING DATA/STROBE RATIOS

37 CFR 1.322 & 37 CFR 1.323 REQUEST FOR CERTIFICATE OF CORRECTION

HONORABLE COMMISSIONER OF PATENTS & TRADEMARKS

Sir:

The following is a request for a certificate of correction in Serial Number 10/685,929, now Patent Number 6,990,562.

A certificate of correction under 35 USC 254 is respectfully requested in the above-identified patent.

All errors were the fault of the USPTO, no fee required. In the event that a further fee is required, please charge the amount to Deposit Account No. 082025.

All errors were the fault of the applicant and, accordingly, please charge \$100.00 to our Deposit Account No. 082025. In the event that a further fee is required, please charge the amount to the same Deposit Account.

The errors were the fault of both the applicant and USPTO and, accordingly, please charge \$100.00 to our Deposit Account No. 082025. In the event that a further fee is required, please charge the amount to the same Deposit Account.

The exact locations where the errors appear in the patent and patent application are as follows:

In column 15, line 61, delete "T" and insert -- The --, therefor.
(Specification filed on Oct. 14, 2003, page 27, line 4)

In column 28, line 11, in Claim 1, after "controller" delete "([0084]; FIG. 1, 100)".

(Claims filed on Oct. 14, 2003, page 49, in Claim 1, line 1)

In column 28, lines 12-13, in Claim 1, after "memory" delete "([0087] & [0095], discussing "memory map 1100" and "MAR 1102"; FIG. 11)".

(Claims filed on Oct. 14, 2003, page 49, in Claim 1, line 2)

In column 28, line 14, in Claim 1, after "ratios" delete "([0087])".

(Claims filed on Oct. 14, 2003, page 49, in Claim 1, line 2)

In column 28, lines 15-16, in Claim 1, after "devices" delete "([0083]), discussing "memory modules" and "RAM devices")".

(Claims filed on Oct. 14, 2003, page 49, in Claim 1, line 3)

In column 28, line 19, in Claim 1, after "drivers" delete "([0085], [0086], [0094])".

(Claims filed on Oct. 14, 2003, page 49, in Claim 1, line 6)

In column 28, lines 25-26, in Claim 1, after "receivers" delete "([0184], [0185], [0186]; FIGS. 10 & 18)".

(Claims filed on Oct. 14, 2003, page 49, in Claim 1, line 11)

In column 28, lines 27-28, in Claim 1, after "network" delete "([0184], discussing "multiplexer 1812")".

(Claims filed on Oct. 14, 2003, page 49, in Claim 1, line 12)

In column 28, line 39, in Claim 2, after "bit" delete "([0088])".

(Claims filed on Oct. 14, 2003, page 49, in Claim 2, line 2)

In column 28, line 40, in Claim 2, after "devices" delete "([0093]; FIG. 11)".

(Claims filed on Oct. 14, 2003, page 49, in Claim 2, line 3)

In column 28, line 42, in Claim 3, after "controller" delete "([0084])".

(Claims filed on Oct. 14, 2003, page 49, in Claim 3, line 2)

In column 28, line 46, in Claim 4, after "devices" delete "([0005], [0038], [0075], [0139])".

(Claims filed on Oct. 14, 2003, page 49, in Claim 4, line 3)

In column 28, lines 48-49, in Claim 5, after "devices" delete "([0084]; 104a, 104b, FIG. 9)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 5, line 2)

In column 28, lines 51-52, in Claim 6, after "elements" delete "([0183], discussing "data latches 1802-1808"; FIG. 18)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 6, line 2)

In column 28, lines 54-55, in Claim 6, after "counters" delete "([0136], [0185]; 1900, FIG. 19)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 6, line 4)

In column 28, line 58, in Claim 6, after "inputs" delete "([0186]; set alt_n, FIG. 18)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 6, line 7)

In column 28, lines 61-62, in Claim 6, after "inputs" delete "([0136], [0185]; S1-S4 S1_alt-S4_alt, FIG. 18)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 6, line 9)

In column 28, lines 64-65, in Claim 6, after "outputs" delete "([00186]; output of multiplexer 1812, FIG. 18)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 6, line 11)

In column 29, lines 2-3, in Claim 7, after "multiplexers" delete "(1812, FIG. 18)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 7, line 2)

In column 29, line 6, in Claim 8, after "detect" delete "([0091])".

(Claims filed on Oct. 14, 2003, page 50, in Claim 8, line 2)

In column 29, line 8, in Claim 9, after "controller" delete "([0084]; FIG. 1,100)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 9, line 1)

In column 29, lines 9-10, in Claim 9, after "memory" delete "([0087] & [0095], discussing "memory map 1100" and "MAR 1102"; FIG. 11)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 9, line 2)

In column 29, line 11, in Claim 9, after "ratios" delete "([0087])".

(Claims filed on Oct. 14, 2003, page 50, in Claim 9, line 2)

In column 29, lines 12-14, in Claim 9, after "devices" delete "([0083]) that are required to access memory devices ([0083]), discussing "memory modules" and "RAM devices")".

(Claims filed on Oct. 14, 2003, page 50, in Claim 9, line 3)

In column 29, lines 16-17, in Claim 9, after "interface" delete "([0084]; memory interface 900, FIG. 9)".

(Claims filed on Oct. 14, 2003, page 50, in Claim 9, line 5)

In column 29, line 28, in Claim 10, after “pads” delete “[0085]; pads DQ0-DQ7, FIG. 9”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 10, line 4)

In column 29, lines 29-30, in Claim 10, after “pads” delete “[0085]; pads DQS0, DQS18, FIG. 9”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 10, line 5)

In column 29, line 31, in Claim 10, after “circuitry” delete “[0085], [0086], [0094]”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 10, line 6)

In column 29, line 36, in Claim 10, after “circuitry” delete “[0184], [0185], [0186]; FIGS. 10 & 18”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 10, line 10)

In column 29, line 45, in Claim 11, after “controller” delete “[0093]”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 11, line 2)

In column 29, line 48, in Claim 12, after “bit” delete “[0088]”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 12, line 3)

In column 29, lines 49-50, in Claim 12, after “devices” delete “[0093]; FIG. 11”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 12, line 4)

In column 30, line 2, in Claim 13, after “controller” delete “[0084]”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 13, line 2)

In column 30, line 5, in Claim 13, after “ratios” delete “[0088]”.

(Claims filed on Oct. 14, 2003, page 51, in Claim 13, line 4)

In column 30, line 8, in Claim 14, after “SDRAMs” delete “[0089]”.

(Claims filed on Oct. 14, 2003, page 52, in Claim 14, line 3)

In column 30, line 11, in Claim 15, after “devices” delete “[0090]”.

(Claims filed on Oct. 14, 2003, page 52, in Claim 15, line 3)

In column 30, line 14, in Claim 16, after “widths” delete “[0090]”.

(Claims filed on Oct. 14, 2003, page 52, in Claim 16, line 2)

In column 30, line 15, in Claim 17, after “controller” delete “[0084]; FIG. 1, 100”.

(Claims filed on Oct. 14, 2003, page 52, in Claim 17, line 1)

In column 30, line 17, in Claim 17, after “pads” delete “[0085]; pads DQ0-DQ7, FIG. 9”.

(Claims filed on Oct. 14, 2003, page 52, in Claim 17, line 2)

In column 30, lines 18-19, in Claim 17, after "pads" delete "([0085]; pads DQS0, DQS18, FIG. 9)".

(Claims filed on Oct. 14, 2003, page 52, in Claim 17, line 3)

In column 30, line 20, in Claim 17, after "means" delete "([0091], e.g., serial presence detect)".

(Claims filed on Oct. 14, 2003, page 52, in Claim 17, line 4)

In column 30, lines 23-26, in Claim 17, after "means" delete "([0095], [0096], discussing "MAR 1102" and circuitry receiving "act_stb[0]" and :act_stb[1]"; FIGS. 8, 9 & 12; [0184], discussing "multiplexer 1812"; FIG. 18)".

(Claims filed on Oct. 14, 2003, page 52, in Claim 17, line 6)

In column 30, lines 34-35, in Claim 18, after "means" delete "([0087] & [0095], discussing "memory map 1100" and "MAR 1102"; FIG. 11)".

(Claims filed on Oct. 14, 2003, page 52, in Claim 18, line 1)

In column 30, lines 42-43, in Claim 19, after "map" delete "(memory map 1100, FIG. 11)".

(Claims filed on Oct. 14, 2003, page 52, in Claim 19, line 2)

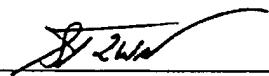
In column 30, lines 47-48, in Claim 20, after "devices" delete "([0091])".

(Claims filed on Oct. 14, 2003, page 53, in Claim 20, line 4)

The requested corrections are attached on Form PTO 1050.

Respectfully Submitted

5/6/09
DATE


Name: Steven L. Webb
Registration No.: 44, 395

Attorney/Agent of Record

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

Page 1 of 6

PATENT NO. : 6,990,562

APPLICATION NO. : 10/685,929

ISSUE DATE : Jan. 24, 2006

INVENTOR(S) : Eric M. Rentschler, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 15, line 61, delete "T" and insert -- The --, therefor.

In column 28, line 11, in Claim 1, after "controller" delete "([0084]; FIG. 1, 100)".

In column 28, lines 12-13, in Claim 1, after "memory" delete "([0087] & [0095], discussing "memory map 1100" and "MAR 1102"; FIG. 11)".

In column 28, line 14, in Claim 1, after "ratios" delete "([0087])".

In column 28, lines 15-16, in Claim 1, after "devices" delete "([0083]), discussing "memory modules" and "RAM devices")".

In column 28, line 19, in Claim 1, after "drivers" delete "([0085], [0086], [0094])".

In column 28, lines 25-26, in Claim 1, after "receivers" delete "([0184], [0185], [0186]; FIGS. 10 & 18)".

In column 28, lines 27-28, in Claim 1, after "network" delete "([0184], discussing "multiplexer 1812")".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

HEWLETT-PACKARD COMPANY
 Intellectual Property Administration
 P. O. Box 272400
 Fort Collins, Colorado 80527-2400

This collection of information is required by 37 CFR 1.322, and 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patent, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 2 of 6

PATENT NO. : 6,990,562

APPLICATION NO. : 10/685,929

ISSUE DATE : Jan. 24, 2006

INVENTOR(S) : Eric M. Rentschler, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 28, line 39, in Claim 2, after "bit" delete "([0088])".

In column 28, line 40, in Claim 2, after "devices" delete "([0093]; FIG. 11)".

In column 28, line 42, in Claim 3, after "controller" delete "([0084])".

In column 28, line 46, in Claim 4, after "devices" delete "([0005], [0038], [0075], [0139])".

In column 28, lines 48-49, in Claim 5, after "devices" delete "([0084]; 104a, 104b, FIG. 9)".

In column 28, lines 51-52, in Claim 6, after "elements" delete "([0183], discussing "data latches 1802-1808"; FIG. 18)".

In column 28, lines 54-55, in Claim 6, after "counters" delete "([0136], [0185]; 1900, FIG. 19)".

In column 28, line 58, in Claim 6, after "inputs" delete "([0186]; set alt_n, FIG. 18)".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

This collection of information is required by 37 CFR 1.322, and 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patent, P.O. Box 1450, Alexandria, VA 22313-1450.

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 3 of 6

PATENT NO. : 6,990,562

APPLICATION NO. : 10/685,929

ISSUE DATE : Jan. 24, 2006

INVENTOR(S) : Eric M. Rentschler, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 28, lines 61-62, in Claim 6, after "inputs" delete "[0136], [0185]; S1-S4 S1_alt-S4_alt, FIG. 18)".

In column 28, lines 64-65, in Claim 6, after "outputs" delete "[00186]; output of multiplexer 1812, FIG. 18)".

In column 29, lines 2-3, in Claim 7, after "multiplexers" delete "(1812, FIG. 18)".

In column 29, line 6, in Claim 8, after "detect" delete "[0091]".

In column 29, line 8, in Claim 9, after "controller" delete "[0084]; FIG. 1,100)".

In column 29, lines 9-10, in Claim 9, after "memory" delete "[0087] & [0095], discussing "memory map 1100" and "MAR 1102"; FIG. 11)".

In column 29, line 11, in Claim 9, after "ratios" delete "[0087]".

In column 29, lines 12-14, in Claim 9, after "devices" delete "[0083]) that are required to access memory devices ([0083]), discussing "memory modules" and "RAM devices")".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

This collection of information is required by 37 CFR 1.322, and 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patent, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 4 of 6

PATENT NO. : 6,990,562

APPLICATION NO. : 10/685,929

ISSUE DATE : Jan. 24, 2006

INVENTOR(S) : Eric M. Rentschler, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 29, lines 16-17, in Claim 9, after "interface" delete "([0084]; memory interface 900, FIG. 9)".

In column 29, line 28, in Claim 10, after "pads" delete "([0085]; pads DQ0-DQ7, FIG. 9)".

In column 29, lines 29-30, in Claim 10, after "pads" delete "([0085]; pads DQS0, DQS18, FIG. 9)".

In column 29, line 31, in Claim 10, after "circuitry" delete "([0085], [0086], [0094])".

In column 29, line 36, in Claim 10, after "circuitry" delete "([0184], [0185], [0186]; FIGS. 10 & 18)".

In column 29, line 45, in Claim 11, after "controller" delete "([0093])".

In column 29, line 48, in Claim 12, after "bit" delete "([0088])".

In column 29, lines 49-50, in Claim 12, after "devices" delete "([0093]; FIG. 11)".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

This collection of information is required by 37 CFR 1.322, and 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patent, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 5 of 6

PATENT NO. : 6,990,562

APPLICATION NO. : 10/685,929

ISSUE DATE : Jan. 24, 2006

INVENTOR(S) : Eric M. Rentschler, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 30, line 2, in Claim 13, after "controller" delete "[0084]".

In column 30, line 5, in Claim 13, after "ratios" delete "[0088]".

In column 30, line 8, in Claim 14, after "SDRAMs" delete "[0089]".

In column 30, line 11, in Claim 15, after "devices" delete "[0090]".

In column 30, line 14, in Claim 16, after "widths" delete "[0090]".

In column 30, line 15, in Claim 17, after "controller" delete "[0084]; FIG. 1, 100)".

In column 30, line 17, in Claim 17, after "pads" delete "[0085]; pads DQ0-DQ7, FIG. 9)".

In column 30, lines 18-19, in Claim 17, after "pads" delete "[0085]; pads DQS0, DQS18, FIG. 9)".

In column 30, line 20, in Claim 17, after "means" delete "[0091], e.g., serial presence detect)".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

This collection of information is required by 37 CFR 1.322, and 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patent, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 6 of 6

PATENT NO. : 6,990,562

APPLICATION NO. : 10/685,929

ISSUE DATE : Jan. 24, 2006

INVENTOR(S) : Eric M. Rentschler, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 30, lines 23-26, in Claim 17, after "mcans" delete "([0095], [0096], discussing "MAR 1102" and circuitry recciving "act_stb[0]" and :act_stb[1]"; FIGS. 8, 9 & 12; [0184], discussing "multiplexer 1812"; FIG. 18)".

In column 30, lines 34-35, in Claim 18, after "means" delete "([0087] & [0095], discussing "memory map 1100" and "MAR 1102"; FIG. 11)".

In column 30, lines 42-43, in Claim 19, after "map" delete "(memory map 1100, FIG. 11)".

In column 30, lines 47-48, in Claim 20, after "devices" delete "([0091])".

MAILING ADDRESS OF SENDER (Please do not use customer number below):

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, Colorado 80527-2400

This collection of information is required by 37 CFR 1.322, and 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patent, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.